3.3.8.14 Southern Sedge Meadow

3.3.8.14.1 Community Overview

Widespread in southern Wisconsin, this open wetland community is most typically dominated by tussock sedge and Canada bluejoint grass. Common associates of relatively undisturbed sedge meadows are other sedges (e.g., *Carex diandra, C. sartwellii*), marsh bellflower, marsh wild-timothy, water horehound, panicled aster, swamp aster, blue flag, spotted Joe-Pye weed, marsh fern, and swamp milkweed. Reed canary grass may be dominant in grazed and/or ditched stands, sometimes to the exclusion of virtually all other species.

Sedge meadows are most common in glaciated landscapes, where they often border streams or drainage lakes. The southern sedge meadow community occurred with prairie, savanna, and hardwood forest communities, and many of them apparently burned periodically. In the absence of fire, shrubs and trees are able to readily encroach on the open wetlands; encroachment can be exacerbated when wetlands are drained. Many sedge meadows in southeastern Wisconsin are influenced by alkaline groundwater, and occur in complexes with emergent marsh, calcareous fen, wet prairie, wet-mesic prairie, and shrub-carr. Differentiating between these communities can be difficult, as they frequently intergrade.

3.3.8.14.2 Vertebrate Species of Greatest Conservation Need Associated with Southern Sedge Meadow

Twenty-four vertebrate Species of Greatest Conservation Need were identified as moderately or significantly associated with southern sedge meadow (Table 3-207).

Table 3-207. Vertebrate Species of Greatest Conservation Need that are (or historically were) moderately or significantly associated with southern sedge meadow communities.

Species Significantly Associated with Southern Sedge Meadow
Herptiles
Blanchard's Cricket Frog
Pickerel Frog
Queen Snake
Butler's Garter Snake
Western Ribbon Snake
Eastern Massasauga Rattlesnake
Species Moderately Associated with Southern Sedge Meadow
Birds
American Bittern
Blue-winged Teal
Northern Harrier
Greater Prairie-chicken
King Rail
Whooping Crane
Barn Owl
Short-eared Owl
Willow Flycatcher
Bobolink
Eastern Meadowlark
Herptiles
Four-toed Salamander
Wood Turtle
Blanding's Turtle
Mammals
Northern Long-eared Bat
Silver-haired Bat
Eastern Red Bat
Hoary Bat

In order to provide a framework for decision-makers to set priorities for conservation actions, the species identified in Table 3-207 were subject to further analysis. The additional analysis identified the best opportunities, by Ecological Landscape, for protection, restoration, and/or management of both southern sedge meadow and associated vertebrate Species of Greatest Conservation Need. The steps of this analysis were:

- Each species was examined relative to its probability of occurrence in each of the 16 Ecological Landscapes in Wisconsin. This information was then cross-referenced with the opportunity for protection, restoration, and/or management of southern sedge meadow in each of the Ecological Landscapes (Tables 3-208 and 3-209).

- Using the analysis described above, a species was further selected if it had both a significant association with southern sedge meadow and a high probability of occurring in an Ecological Landscape(s) that represents a major opportunity for protection, restoration and/or management of southern sedge meadow. These species are shown in Figure 3-52.

Table 3-208. Vertebrate Species of Greatest Conservation Need that are (or historically were) *significantly* associated with southern sedge meadow communities and their association with Ecological Landscapes that support southern sedge meadow.

Southern Sedge Meadow	Herptiles (6)*					
Ecological Landscape grouped by opportunity for management, protection, and/or restoration of this community type	Blanchard's Cricket Frog	Pickerel Frog	Queen Snake	Butler's Garter Snake	Western Ribbon Snake	Eastern Massasauga Rattlesnake
MAJOR						
Central Sand Hills						
Southeast Glacial Plains						
IMPORTANT						
Central Lake Michigan Coastal						
Central Sand Plains						
Northern Lake Michigan Coastal						
Southern Lake Michigan Coastal						
Western Coulee and Ridges						
PRESENT (MINOR)						
Forest Transition						
Southwest Savanna						
Western Prairie						

Color Key

= HIGH probability the species occurs in this Ecological Landscape

= MODERATE probability the species occurs in this Ecological Landscape

= LOW or NO probability the species occurs in this Ecological Landscape

*** The number shown in parentheses is the number of Species of Greatest Conservation Need from a particular taxa group that are included in the table. Taxa groups that are not shown did not have any Species of Greatest Conservation Need that met the criteria necessary for inclusion in this table.**

Table 3-209. Vertebrate Species of Greatest Conservation Need that are (or historically were) *moderately* associated with southern sedge meadow communities and their association with Ecological Landscapes that support southern sedge meadow.

Southern Sedge Meadow	Birds (11)*											Herptiles (3)			Mammals (4)			
Ecological Landscape grouped by opportunity for management, protection, and/or restoration of this community type	American Bittern	Blue-winged Teal	Northern Harrier	Greater Prairie-Chicken	King Rail	Whooping Crane	Barn Owl	Short-eared Owl	Willow Flycatcher	Bobolink	Eastern Meadowlark	Four-toed Salamander	Wood Turtle	Blanding's Turtle	Northern Long-eared Bat	Silver-haired Bat	Eastern Red Bat	Hoary Bat
MAJOR																		
Central Sand Hills	H	H	H			H		M	H	H	H	M		H	M	M	M	M
Southeast Glacial Plains	H	H	H		H	H		H	H	H	H	H		H	M	M	M	M
IMPORTANT																		
Central Lake Michigan Coastal	M	H	H		M			M	H	H	H	H	M	M	M	M	M	M
Central Sand Plains	H	H	H	H	M	H		H	H	H	H	H	H	H	M	M	M	M
Northern Lake Michigan Coastal	M	H	H						H	H	H	M	H	M	M	M	M	M
Southern Lake Michigan Coastal	M	M	M		M			M	H	H	H			H				
Western Coulee and Ridges		H	H		M	M		M	H	H	H	H	H	H	H	M	M	M
PRESENT (MINOR)																		
Forest Transition	H	H	H	H						H	H	H	H		M	M	H	M
Southwest Savanna		M	M					H	H	H	H			H	M		M	
Western Prairie	M	H	H		M			M	H	H	H		H	H				

Color Key

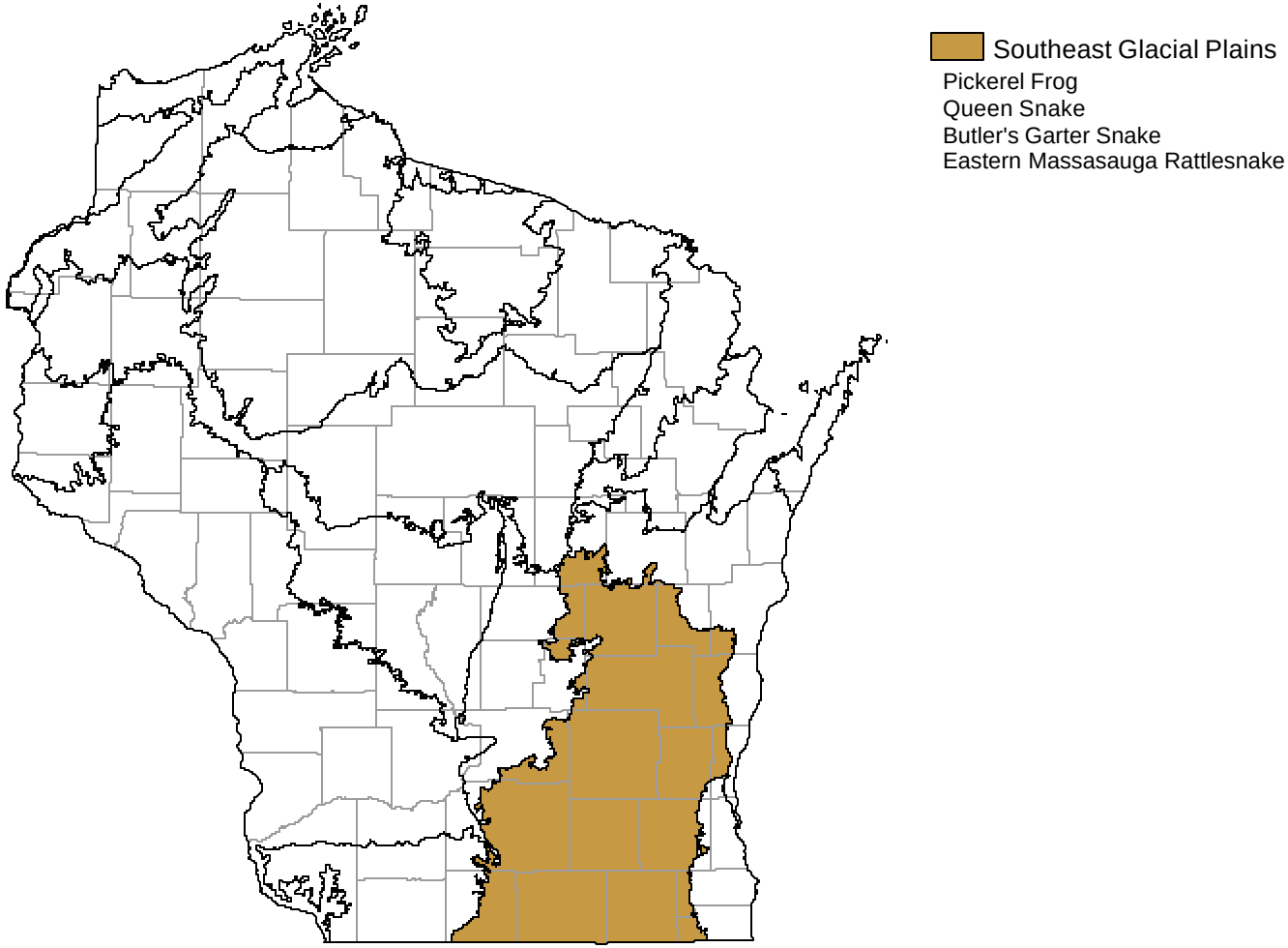
H = HIGH probability the species occurs in this Ecological Landscape

M = MODERATE probability the species occurs in this Ecological Landscape

= LOW or NO probability the species occurs in this Ecological Landscape

*** The number shown in parentheses is the number of Species of Greatest Conservation Need from a particular taxa group that are included in the table. Taxa groups that are not shown did not have any Species of Greatest Conservation Need that met the criteria necessary for inclusion in this table.**

Figure 3-52. Vertebrate Species of Greatest Conservation Need that have *both* a significant association with southern sedge meadow *and* a high probability of occurring in an Ecological Landscape(s) that represents a major opportunity for protection, restoration and/or management of southern sedge meadow.



3.3.8.14.3 Threats and Priority Conservation Actions for Southern Sedge Meadow

3.3.8.14.3.1 Statewide Overview of Threats and Priority Conservation Actions for Southern Sedge Meadow

The following list of threats and priority conservation actions were identified for southern sedge meadow in Wisconsin. The threats and priority conservation actions described below apply to all of the Ecological Landscapes in Section 3.3.8.14.3.2 unless otherwise indicated.

Threats and Issues

- Changing hydrology by flooding or lowering water levels can be detrimental.
- Ditched stands can convert quickly to shrub-carr.
- Conversion of sedge meadow to open marsh habitat can eliminate this community type.
- Woody invasion is a problem associated with hydrologic disturbance and lack of fire.
- Major invasive species problems exist, especially with reed canary grass, purple loosestrife, and glossy buckthorn.
- Disturbance can introduce invasives that out-compete native vegetation. Excessive grazing can lower species diversity, eliminate sensitive species, facilitate the introduction of invasives, raise nutrient levels, and compact soil.

Priority Conservation Actions

- Fluctuating water levels and/or prescribed fire are needed to maintain this community.
- Avoid excessive grazing in this type because this disturbance often results in conversion to reed canary grass.
- Maintain large blocks of habitat. Manage complexes of sedge meadow in conjunction with wet prairie, savanna, surrogate prairie grasslands, and other open habitats where possible.
- Maintain open aspect by using prescribed fire where appropriate to prevent woody invasion. Follow existing management guidelines for prescribed fire to minimize impacts on sensitive species.
- Maintain hydrologic processes by preventing drainage for agriculture and flooding for open marsh habitat.
- Manage watersheds to control runoff from surrounding agricultural areas that may contribute nutrients and sediment; benefiting invasive species (e.g., reed canary grass).
- Buffer uplands and manage shorelines to prevent erosion and sedimentation and limit pollutant inputs.
- Restore hydrology in ditched areas.
- Maintain or restore natural hydrologic cycles of fluctuating water levels. Conduct additional studies to determine appropriate cycles, and the timing of high and low water.
- Control the spread of invasives and reduce or eliminate them where possible.
- Avoid disturbances (e.g., pothole creation, or the digging of level ditches) that expose mineral or organic soils by creating spoil banks, to limit establishment of invasives.
- Continue and support research to find biocontrols for problematic invasives.
- Monitor sites to determine whether management is maintaining native diversity.
- Portions of east-central Wisconsin should be more thoroughly surveyed for this community.

3.3.8.14.3.2 Additional Considerations for Southern Sedge Meadow by Ecological Landscape

Special considerations have been identified for those Ecological Landscapes where major or important opportunities for protection, restoration, and/or management of southern sedge meadow exist. Those considerations are described below and are in addition to the statewide threats and priority conservation actions for southern sedge meadow found in Section 3.3.8.14.3.1.

Additional Considerations for Southern Sedge Meadow in Ecological Landscapes with ***Major*** Opportunities for Protection, Restoration, and/or Management

Central Sand Hills

Examples of this type in this Ecological Landscape are found at French Creek State Wildlife Area (Columbia County), Fox River Crane Marsh (Marquette County), and Grand River Marsh State Wildlife Area (Green Lake County).

Southeast Glacial Plains

Examples of this type are found at Scuppernong Marsh, at several additional locations within the Southern Unit of the Kettle Moraine State Forest, at the Upper Mukwonago River Wetlands (Walworth County), White River Marsh State Wildlife Area (Green Lake County), Rush Lake Meadows (Winnebago County), and South Waubesa Wetlands State Natural Area (Dane County).

Additional Considerations for Southern Sedge Meadow in Ecological Landscapes with ***Important*** Opportunities for Protection, Restoration, and/or Management

Northern Lake Michigan Coastal

Southern sedge meadow occurs at Peshtigo Harbor State Wildlife Area (Marinette County) and Green Bay West Shores State Wildlife Area (Oconto and Brown counties).

Central Lake Michigan Coastal

Examples of this type are found at Point Beach State Forest (Manitowoc County) and Green Bay Shores State Wildlife Area (Brown County).

Central Sand Plains

Examples of this type are found at Quincy Bluff and Wetlands State Natural Area (Adams County), Meadow Valley Wildlife Area (Juneau County), and several locations on public lands elsewhere in this Ecological Landscape. The more acidic northern sedge meadow and poor fen communities are the most common open wetland types in this landscape.

Southern Lake Michigan Coastal

Small patches of southern sedge meadow are associated with more extensive wetland communities of other types at Big Muskego Lake (Waukesha County), Chiwaukee Prairie (Kenosha County), and Mission Hills Wetlands (Milwaukee County).

Western Coulee and Ridges

Examples of this type are found at Tiffany Bottoms State Wildlife Area (Buffalo County), Avoca Prairie State Natural Area (Iowa County), and at several locations within the Lower Wisconsin State Riverway.